Water Quality Monitoring

Mr. Jordan Wilmes
7th Grade Integrated Science
Stilwell Junior High School
Des Moines Parks and Recreation

Part I: Overview of Business

• The City of Des Moines Park and Recreation department is responsible for the management of 76 parks across Des Moines. They are also responsible for a variety of amenities throughout the park system, such as trails, picnic areas, public pools, and ball fields. The Park and Recreation staff consists of 58 full-time and over 200 seasonal employees. The mission of the department is "Helping Des Moines Live Well, Play Hard and Protect the Earth."

Part II: Job Specifics

• Jordan worked as the Water Quality Monitoring Program Coordinator in the Park and Recreation Department. Jordan went to about 20 different water testing sites and evaluated the locations for future testing. Jordan used photos of the locations , GPS data, and current testing procedures to create a "how- to" guide. This guide will serve as a protocol and training tool for employees and volunteers to use when collecting and testing the water samples.

Part III: Introduce the Problem

• Certain aspects of water quality can affect the things that live in certain bodies of water. How can we accurately gather and present data to help determine correlations between population sizes and certain water qualities?

Part IV: Background

• Students should know that changes to biological or physical features of an environment may affect population sizes.
• Students should know how to gather and compile data.
• Students should know how to conduct appropriate water tests.

Part V: Business Solution

• Des Moines Parks and Recreation created a "how-to" manual for staff and volunteers to use to accurately gather water quality data. This allowed them to compile data into charts and graphs.

Part VI: Student Solutions

• Students will gather water quality data from a local creek or stream.
• Students will compile data into graphs.
• Students will assess their data to determine possible problems to populations.